



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[FWS–R4–ES–2013–0015]

[4500030113]

RIN 1018–AZ47

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for
Leavenworthia exigua var. *laciniata* (Kentucky Glade Cress)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, propose to designate critical habitat for *Leavenworthia exigua* var. *laciniata* (Kentucky glade cress). The effect of these regulations, if finalized, would be to protect *Leavenworthia exigua* var. *laciniata*'s critical habitat under the Act.

DATES: We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R4–ES–2013–0015, which is the docket number for this rulemaking. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R4–ES–2013–0015; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will not accept e-mail or faxes. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see the **Public Comments** section below for more

information).

FOR FURTHER INFORMATION CONTACT: Lee Andrews, Field Supervisor, U.S. Fish and Wildlife Service, Kentucky Ecological Services Field Office, J.C. Watts Federal Building, 330 W. Broadway Rm. 265, Frankfort, KY 40601, by telephone 502–695–0468 or by facsimile 502–695–1024. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, if we intend to list a species as endangered or threatened throughout all or a significant portion of its range, we are required to promptly publish a proposal in the **Federal Register** and make a determination on our proposal within 1 year. Critical habitat shall be designated, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Designations and revisions of critical habitat can be completed only by issuing a rule. Elsewhere in today’s **Federal Register**, we propose to list *Leavenworthia exigua* var. *laciniata* as a threatened species under the Act.

This rule consists of: A proposed critical habitat designation for *Leavenworthia exigua* var. *laciniata* under the Act.

The basis for our action. Under the Act, to the maximum extent prudent and determinable, we must designate critical habitat for the species concurrently with listing the species as endangered or threatened. The species is being proposed for listing as threatened, and, therefore, we also propose to designate 2,053 acres (830 ha) as critical habitat in Bullitt and Jefferson Counties, Kentucky.

We will seek peer review. We are seeking comments from knowledgeable individuals with scientific expertise to review our analysis of the best available science and its application, and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information received during the comment period, our final designation may differ from this proposal.

Information Requested

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from the public, other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act, including whether there are threats to the species from

human activity, the degree of which can be expected to increase due to the designation, and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat is not prudent.

(2) Specific information on:

(a) The amount and distribution of *Leavenworthia exigua* var. *laciniata* and its habitat,

(b) What may constitute “physical or biological features essential to the conservation of the species,” within the geographical range currently occupied by the species;

(c) Where these features are currently found;

(d) Whether any of these features may require special management considerations or protection;

(e) What areas, that were occupied at the time of listing (or are currently occupied) and that contain features essential to the conservation of the species, should be included in the designation and why; and

(f) What areas not occupied at the time of listing are essential for the conservation of the species and why.

(3) Land use designations and current or planned activities in the areas occupied by the species or proposed to be designated as critical habitat, and possible impacts of these activities on this species and proposed critical habitat;

(4) Information on the projected and reasonably likely impacts of climate change on *L. exigua* var. *laciniata* and proposed critical habitat;

(5) Any foreseeable economic, national security, or other relevant impacts that may result from designating any area that may be included in the final designation. We are particularly interested in any impacts on small entities, and the benefits of including or excluding areas from the proposed designation that are subject to these impacts;

(6) Whether our approach to designating critical habitat could be improved or modified in any way to provide for greater public participation and understanding, or to assist us in accommodating public concerns and comments;

(7) The likelihood of adverse social reactions to the designation of critical habitat and how the consequences of such reactions, if likely to occur, would relate to the conservation and regulatory benefits of the proposed critical habitat designation.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not

be considered in making a determination, as section 4(b)(2) of the Act directs that designations of critical habitat for a listed species must be made “on the basis of the best scientific and commercial data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat.”

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments **only** by the methods described in the **ADDRESSES** section.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>. Please include sufficient information with your comments to allow us to verify any scientific or commercial information you include.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>, or by appointment, during normal business hours, at the U.S.

Fish and Wildlife Service, Kentucky Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Previous Federal Actions

All previous Federal actions are described in the proposal to list *Leavenworthia exigua* var. *laciniata* as a threatened species under the Act published elsewhere in today's **Federal Register**.

Background

It is our intent to discuss below only those topics directly relevant to the designation of critical habitat for *L. exigua* var. *laciniata* in this proposed rule. For information related to the listing of the species, see the proposed rule to list the species as threatened, published elsewhere in today's **Federal Register**.

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features:

- (a) Essential to the conservation of the species, and
- (b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it is listed are included in a critical habitat designation if they contain physical or biological features (1) essential to the conservation of the species, and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical and biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its

range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines, provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the

species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions of section 9 of the Act if actions occurring in these areas may affect the species. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Prudency Determination

Section 4(a)(3) of the Act, as amended, and its implementing regulations (50 CFR 424.12), require that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that the designation of critical

habitat is not prudent when one or both of the following situations exist:

- (1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or
- (2) such designation of critical habitat would not be beneficial to the species.

There is currently no imminent threat of take attributed to collection or vandalism under Factor B (see *Factor B: Overutilization for Commercial, Recreational, Scientific, or Educational Purposes* of our proposed listing rule published elsewhere in today's Federal Register) for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In the absence of a finding that the designation of critical habitat would increase threats to a species, if there are any benefits to a critical habitat designation, then a prudent finding is warranted. Here, the potential benefits of designation include: (1) Triggering consultation under section 7 of the Act in new areas for actions in which there may be a Federal nexus where it would not otherwise occur because, for example, it is or has become unoccupied or the occupancy is in question; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species. Therefore, because we have determined that the designation of critical habitat will not likely increase the degree of threat to the species and may provide some measure of benefit, we find that designation of critical habitat is prudent for *L. exigua* var. *laciniata*.

Critical Habitat Determinability

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for *L. exigua* var. *laciniata* is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Information sufficient to perform required analyses of the impacts of the designation is lacking, or
- (ii) The biological needs of the species are not sufficiently well known to permit identification of an area as critical habitat.

We reviewed the available information pertaining to the biological needs of the species and habitat characteristics where these species are located. This and other information represent the best scientific data available and lead us to conclude that the designation of critical habitat is determinable for *L. exigua* var. *laciniata*.

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographic area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;

- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;
- (4) Sites for breeding, reproduction, or rearing (or development) of offspring, germination or seed dispersal; and
- (5) Habitats that are protected from disturbance or are representative of the historical, geographic, and ecological distributions of a species.

We derive the specific physical and biological features required for *L. exigua* var. *laciniata* from studies of this species' habitat, ecology, and life history as described below. We have determined that the following physical and biological features are essential for *L. exigua* var. *laciniata*:

Space for Individual and Population Growth and for Normal Behavior

L. exigua var. *laciniata* is typically found in cedar glades (Baskin and Baskin 1981, p. 243), which are described by Baskin and Baskin (1999, p. 206) as "open areas of rock pavement, gravel, flagstone, and/or shallow soil in which occur natural, long-persisting (edaphic climax) plant communities dominated by angiosperms and/or cryptogams." *L. exigua* var. *laciniata* is also known from gladelike areas such as overgrazed pastures, eroded shallow soil areas with exposed bedrock, and areas where the soil has been scraped off the underlying bedrock (Evans and Hannan 1990, p. 8). These disturbed areas are gladelike in the shallowness or near-absence of their soils, saturation,

and/or inundation during the wet periods of late fall, winter, and early spring and then frequently dry below the permanent wilting point during the summer (Baskin and Baskin 2003, p. 101). These conditions likely prevent species that would shade or compete with *L. exigua* var. *laciniata* from establishing in these areas.

While the individual rock exposure or outcrop areas will vary in size and may be small and scattered throughout the glade(s) or gladelike areas, they will ideally occur in groups to comprise a glade (or gladelike) complex. Habitat destruction, modification and fragmentation within the narrow range of *L. exigua* var. *laciniata* make it difficult to determine the optimal size or density of glade habitats needed to support the long-term survival of the species. Pine Creek Barrens Preserve (owned by The Nature Conservancy) contains the only remaining A- ranked population of *L. exigua* var. *laciniata*, described as having thousands of plants scattered over 25–30 acres. Similarly, the B-ranked Rocky Run was described in 1990 as containing thousands of plants scattered over 2 miles. Many of the poor (D) ranked populations occur within areas as small as a few square meters (KSNPC 2012, pp. 1–108). While the long-term viability of these populations is considered poor, monitoring efforts have shown that for the short term, some *L. exigua* var. *laciniata* populations are able to persist (i.e., grow and reproduce) on these small and fragmented sites.

Based on the information above, we identify cedar glades and gladelike areas underlain by Silurian dolomite or dolomitic limestone as an essential physical or biological feature for the species.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

The specific water needs of *L. exigua* var. *laciniata* are unknown; however, the sites it occupies are extremely wet from late winter to early spring and quickly become dry in late May and June. This hydrologic regime is critical for the plant's survival in that it provides sufficient moisture for the taxon's life cycle (germination in fall, plant growth from fall to early spring, and seed production in the spring). Additionally, the droughty conditions during the typical growing season prevent the establishment of plants that could shade or outcompete *L. exigua* var. *laciniata*.

L. exigua var. *laciniata* is shade intolerant. Open glade habitats appear to provide the most favorable conditions for this species (Evans and Hannan 1990, p. 14). Baskin and Baskin (1988, p. 834) noted that most endemics occurring on rock outcrops (such as *L. exigua* var. *laciniata*) are restricted to the open and well-lighted areas of the outcrops as opposed to similar but more shaded areas near the surrounding forest.

L. exigua var. *laciniata* seems more dependent upon the lack of soil and the proximity of rock near or at the surface rather than a specific type of soil (Evans and Hannan 1990, p. 8). It occurs primarily in open, gravelly soils around rock outcrops in an area of the Caneyville–Crider soil association (Whitaker and Waters 1986, p. 16). Baskin and Baskin (1981, p. 245) identified shallow soils (1–5 cm) over limestone or dolomite to be characteristic habitat of *L. exigua* var. *laciniata*.

Based on this information, we identify unshaded and shallow soils that are extremely wet from late winter to early spring and quickly become dry in late May and

June to be an essential physical or biological feature for this species.

*Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring,
Germination, or Seed Dispersal*

Like all annuals, *L. exigua* var. *laciniata* reproduces sexually through seed production. Successful reproduction of *L. exigua* var. *laciniata* requires sufficient moisture for germination, growth, flowering, and seed production. Pollination of *L. exigua* var. *laciniata* can be by insects or self-pollination (Rollins 1963, p. 47). Seeds may fall to the ground, be transported by animals, or carried by precipitation sheet flow to new sites.

The seeds of *L. exigua* var. *laciniata* germinate in the fall, with plants surviving through the winter as rosettes that flower in early spring. Seeds are typically dispersed in mid- to late-May (Evans and Hannan 1990, p. 11). After the seeds ripen, the silique (pod) soon splits open. Seeds may immediately fall out or remain on the plant for several days. The extent to which this plant can expand to new sites is unknown.

Lloyd (1965, p. 92) noted that seeds from *Leavenworthia* lack adaptations that would allow for dispersal by wind or animals. Sheet flow likely provides local dispersion for seeds lying on the ground (Lloyd 1965, pp. 92–93; Evans and Hannan 1990, p. 11). In reviewing aerial photography and topographic mapping of known *L. exigua* var. *laciniata* occurrences, it appears that populations often follow suitable habitat as it

extends along topographic contours or within drainage patterns. Areas of bare ground are essential in the dispersal and germination of seeds. The cyclical moisture availability on the thin soils of glades and other habitats acts to limit the number of plant species that can tolerate these extremes (Evans and Hannan 1990, pp. 9–10).

L. exigua var. *laciniata* seeds have been shown to retain viability for at least 3 years under greenhouse conditions (Baskin and Baskin 1981, p. 247). A strong seed bank is expected to be important for the continued existence of *L. exigua* var. *laciniata*, especially following a year when conditions are unfavorable for reproduction (e.g., damage (natural or manmade) to plants prior to seed set). Accordingly, *L. exigua* var. *laciniata* habitat must be protected from activities that would damage or destroy the seed bank.

Based on the information above, we identify glade and gladelike habitats with intact hydrology and an undisturbed seed bank to be a physical or biological feature for *L. exigua* var. *laciniata* essential to the conservation of this species. These areas are critical for seed dispersal and germination.

Habitats Protected from Disturbance or Representative of the Historical, Geographical, and Ecological Distribution of the Species

Disturbance in the form of development (and associated infrastructure) is a major factor in the loss and degradation of habitat for *L. exigua* var. *laciniata*. Development

can directly eliminate or fragment essential habitat and indirectly cause changes to the habitat (e.g., through erosion, shading, introduction of invasive plants—all of which may cause declines in distribution or in numbers of plants per occurrence). Protected habitats are, therefore, of crucial importance for the growth and dispersal of *L. exigua* var.

laciniata. These areas are critical to protecting *L. exigua* var. *laciniata* populations and habitat from impacts such as sedimentation, erosion, and competition from nonnative or invasive plants.

The natural areas supporting *L. exigua* var. *laciniata* are cedar glades, which Baskin and Baskin (2003, p. 101) describe as flat to gently sloping, open areas of shallow soils and/or calcareous rock (pavement, gravel, flagstone) that support an edaphic climax plant community dominated by nonwoody species. These areas are often associated with eastern red-cedar thickets (Jones 2005, p. 33) and/or scrubby red-cedar-hardwood forests (Baskin and Baskin 1999, p. 102). These associated areas and other, adjacent, undeveloped ground provide important buffer protection from disturbance.

Leavenworthia spp. has a patchy distribution within the exposed rock outcrops and shallow soil areas of cedar glade habitats and gladelike areas (Lloyd 1965, p. 87). *L. exigua* var. *laciniata* is an endemic species restricted to a very specific habitat type with a patchy distribution across the landscape separated by large areas of habitat unsuitable for *L. exigua* var. *laciniata*. Although these cedar glades also contain areas of deeper soil where other, associated vegetation grows, these areas of deeper soil are essential components of the glade and critical for maintaining habitat suitable for occupation by *L.*

exigua var. *laciniata*.

Based on a review of aerial imagery, habitat areas that appear to provide sufficient protection generally have the hillside (creek to topographic break) and adjacent contour surrounding the glade areas in vegetated (primarily wooded) habitat. Buffer areas of this magnitude protect *L. exigua* var. *laciniata* populations and habitat from adjacent development and habitat change. Although these areas are not directly occupied by *L. exigua* var. *laciniata*, they are essential to the growth and dispersal of the species within areas of suitable habitat.

Therefore, based on the information above, we identify vegetated areas surrounding glades and gladelike habitats that protect the hydrology, soils, and seed bank to be a physical or biological feature for this species.

Primary Constituent Elements for *L. exigua* var. *laciniata*

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of *L. exigua* var. *laciniata* in areas occupied at the time of listing, focusing on the features' primary constituent elements. We consider primary constituent elements to be the specific elements of physical or biological features that, when laid out in the appropriate quantity and spatial arrangement to provide for a species' life-history processes, are essential to the conservation of the species.

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, we determined that the primary constituent elements specific to *L. exigua* var. *laciniata* are:

- (1) Cedar glades and gladelike areas within the range of *L. exigua* var. *laciniata* which include:
 - (a) Areas of rock outcrop, gravel, flagstone of Silurian dolomite or dolomitic limestone, and/or shallow (1–5 cm), calcareous soils;
 - (b) Intact cyclic hydrologic regime involving saturation and/or inundation of the area in winter and early spring, then drying quickly in the summer;
 - (c) Full or nearly full sunlight; and
 - (d) An undisturbed seed bank.
- (2) Vegetated land around glades and gladelike areas that extends up and down slope and ends at natural (e.g., stream, topographic contours) or manmade breaks (e.g. roads).

Special Management Considerations or Protection

When designating critical habitat, we assessed whether the specific areas within the geographic area occupied by the species at the time of listing contain features which are essential to the conservation of the species and which may require special management considerations or protection. We believe each area included in these

designations requires special management and protections as described in our unit descriptions.

We need to consider special management considerations or protection for the features essential to the conservation of the species within each critical habitat area. The special management considerations or protections will depend on threats to the essential features of the critical habitat area. For example, major threats to the PCEs in the areas identified as proposed critical habitat for *L. exigua* var. *laciniata* include: residential and commercial development on private land; construction and maintenance of roads and utility lines, incompatible agricultural or grazing practices; off-road vehicle (ORV) or horseback riding; encroachment by nonnative plants or forage species; and forest encroachment due to fire suppression. These threats are in addition to random effects of droughts, floods, or other natural phenomena.

Management activities that could address these threats include (but are not limited to): (1) Avoiding cedar glades (or suitable gladelike habitats) when planning the location of buildings, lawns, roads (including horse or ORV trails), or utilities; (2) avoiding aboveground construction and/or excavations in locations that would interfere with natural water movement to suitable habitat sites; (3) protecting and restoring as many glade complexes as possible; (4) research supporting the development of management recommendations for grazing and other agricultural practices; (5) technical or financial assistance to landowners that may help in the design and implementation of management actions that protect the plant and its habitat; (6) avoiding lawn grass or tree plantings near

glades; and (7) habitat management, such as brush removal, prescribed fire, and/or eradication of lawn grasses to maintain an intact native glade vegetation community.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. We reviewed available information pertaining to the habitat requirements of the species. In accordance with the Act and its implementing regulation at 50 CFR 424.12(e), we consider whether designating additional areas outside of those currently occupied is necessary to ensure the conservation of the species. Currently, we are not proposing to designate any areas outside the geographic area occupied by the species because occupied areas are sufficient for the conservation of the species, and we have no evidence that this taxon ever existed beyond its current range.

Sites were considered occupied if the Kentucky State Nature Preserves Commission (KSNPC) Element Occurrence Report (KSNPC 2012, pp. 1–108) considered an element occurrence to be an extant population at the time of the proposed listing rule.

We also reviewed available information that pertains to habitat requirements of *Leavenworthia exigua* var. *laciniata*. The sources of information include, but are not limited to:

1. Data used to prepare the proposed listing package;

2. Peer-reviewed articles, various agency reports, and the Kentucky State Nature Preserves Natural Heritage Program database;
3. Information from species experts;
4. Regional Geographic Information System (GIS) data (such as species occurrence data, topography, aerial imagery, and land ownership maps) for area calculations and mapping.

Areas proposed for critical habitat designation were selected based on the quality of the element occurrence(s), condition of the habitat, and distribution within the species' range. Typically, selected areas contain good quality or better occurrences (A, B, or C-ranked) and natural habitat, as identified by KSNPC in the Natural Heritage Report (2012, pp. 1–108). However, some lower quality occurrences, with restoration potential, are included to ensure that critical habitat is being designated across the species' range and to avoid a potential reduction of the distribution of *L. exigua* var. *laciniata*. The glade habitat upon which the species depends is often easily viewed using aerial photography. Additionally, aerial photography provides an overview of the land use surrounding the glades. Topographic maps provide contours and drainage patterns that were used to help identify potential areas for growth and expansion of the species. A combination of these tools, in a GIS interface, allowed for the determination of the critical habitat boundaries.

When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other

structures because such lands lack physical or biological features for *Leavenworthia exigua* var. *laciniata*. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

Summary

In conclusion, we are proposing for designation as critical habitat specific areas that we have determined are occupied at the time of listing and contain sufficient elements of the physical or biological features essential for the conservation of *L. exigua* var. *laciniata*. We determined that no additional areas are considered essential for the conservation of the species because the proposed occupied areas provide sufficient habitat to conserve the species. The proposed units contained all of the identified elements of physical or biological features and support multiple life-history processes.

Proposed Critical Habitat Designation

We are proposing the following six units, consisting of 18 subunits, as critical habitat for *L. exigua* var. *laciniata*: (1) Unit 1: McNeely Lake, (2) Unit 2: Old Mans Run, (3) Unit 3: Mount Washington, (4) Unit 4: Cedar Creek, (5) Unit 5: Cox Creek, (6) Unit 6: Rocky Run. All units and subunits are currently occupied. They constitute our best assessment of areas that meet the definition of critical habitat for *L. exigua* var. *laciniata* under the Act. These subunits represent 18 of the 61 extant occurrences of *L. exigua* var. *laciniata*. Each unit contains all of the primary constituent elements of the physical or biological features essential to the conservation of the Kentucky glade cress. Table 1 includes the ownership information and size of unit/subunits we are proposing as critical habitat.

Table 1. Proposed critical habitat units for *L. exigua* var. *laciniata*. (Area estimates reflect all land within critical habitat unit boundaries.)

Critical Habitat Unit	Sub Unit	Land Ownership by Type	Size of Unit in Acres (Hectares)
1		Louisville/Jefferson County Metro Government	18 (7)
2	2A	Private	102 (41)
2	2B	Private	870 (352)
2	2C	Private	42 (17)
3	3A	Private	25 (10)
3	3B	Private	7 (3)
3	3C	Private	10 (4)
4	4A	Private	91 (37)
4	4B	KSNPC; Private; Private with KSNPC easement	69 (28)

4	4C	Private	83 (34)
4	4D	Private	46 (19)
4	4E	Private	102 (41)
4	4F	Private	120 (49)
4	4G	Private	20 (8)
4	4H	Private	16 (6)
5	5A	Private	8 (3)
5	5B	Private	50 (20)
6		Private	374 (151)
Total			2,053 (830)

Note: Area sizes may not sum due to rounding.

Below, we present brief descriptions of all units, and reasons why they meet the definition of critical habitat for *L. exigua* var. *laciniata*.

Unit 1: McNeely Lake, Jefferson and Bullitt Counties, Kentucky

Unit 1 consists of 18 ac (7 ha) within McNeely Lake Park in Jefferson County, Kentucky. This critical habitat unit is under county government ownership. This critical habitat unit occurs at the northwestern edge of the species' range where there is little remaining habitat and few occurrences and is important to the distribution of the species. Habitat degradation (e.g., erosion, invasive species) is impacting the species' ability to persist within this unit; however, the landowner has received funding and is working with

the Service and KSPNC to develop a management plan for the site and to implement habitat improvement practices. These planned activities are expected to improve population numbers and viability at this important site. This unit helps to maintain the geographical range of the species and provides opportunity for population growth. Within proposed Unit 1, the Kentucky glade cress and its habitat may require special management considerations or protection to address potential adverse effects associated with encroachment by nonnative plants or forage species, and forest encroachment due to fire suppression.

Unit 2, Subunits A, B, and C: Old Mans Run, Jefferson and Bullitt Counties, Kentucky

Unit 2 consists of three subunits totaling 1,014 ac (410 ha) in Bullitt and Jefferson Counties, Kentucky. It is located just south of the Jefferson/Bullitt County line and extends north of Old Mans Run. This critical habitat unit includes four element occurrences. Subunit B represents the best remaining populations and habitat for *L. exigua* var. *laciniata* in Jefferson County. Subunits A and C are important areas at the northern extent of the species' range. These three subunits represent the northeastern extent of the population's range and increase population redundancy within the species' range. Within proposed Unit 2, *L. exigua* var. *laciniata* and its habitat may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment.

Subunit 2A is 102 ac (41 ha) in size and is located west of US 150 and northwest of Floyds Fork. It is in private ownership. While all PCEs are present within this subunit, it contains few native plant associates for *L. exigua* var. *laciniata*, and the increased competition from lawn grasses may decrease the ability of *L. exigua* var. *laciniata* to persist. This area is important for maintaining the northern distribution of *L. exigua* var. *laciniata*.

Subunit 2B is 870 ac (352 ha) in size and is located east of US 150 and extends north and south of Old Mans Run. It is in private ownership. This is the largest of the proposed subunits and contains the two highest ranked (1-B and 1-C) occurrences in Jefferson County. It represents the best remaining habitat in this portion of the range and may contain more than half of the total *L. exigua* var. *laciniata* population based on a 2011 survey by KSNPC, which estimated more than 20,000 individuals at 4 sites within this subunit. At this site, competition from lawn grasses impacts *L. exigua* var. *laciniata* and may decrease its ability to persist.

Subunit 2C is 42 ac (17 ha) in size and is located west of US 150 and east of Floyds Fork, extending into both Bullitt and Jefferson Counties. It is in private ownership. This subunit is primarily pasture, and habitat for *L. exigua* var. *laciniata* is impacted by competition from lawn grasses. Restoration of this area to improve habitat for *L. exigua* var. *laciniata* is important for maintaining the northern distribution of the species.

Unit 3, Subunits A, B and C: Mount Washington, Bullitt County, Kentucky

Unit 3 consists of 42 ac (17 ha) and includes three subunits in Bullitt County, Kentucky, primarily within or adjacent to the city limits of Mount Washington. This critical habitat unit includes three element occurrences and provides an important link between the northern and southern portions of the species' range. Within proposed Unit 3, the Kentucky glade cress and its habitat may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 3A is 25 ac (10 ha) in size and is located northeast of Mount Washington. It is in private ownership. Habitat for *L. exigua* var. *laciniata* within this subunit is degraded and would improve with management. It represents important habitat on the eastern extent of the species' range. At this subunit, habitat conversion and off-road vehicle usage impact *L. exigua* var. *laciniata* habitat and may decrease the species' ability to persist at this site.

Subunit 3B is 7 ac (3 ha) in size and is located east of Hubbard Lane and south of Keeneland Drive. It is in private ownership. The glade habitat has been degraded by adjacent land use and would benefit from improved management. The site represents an

important link between other proposed subunits.

Subunit 3C is 10 ac (4 ha) in size and is located east of US 150 and south of Highway 44E. It is in private ownership. The site represents an important and high quality cedar glade in an area of ongoing, intensive development. Land use surrounding the glade remnant appears stable and the glade contains several native plant species associated with *L. exigua* var. *laciniata*.

Unit 4, Subunits A, B, C, D, E, F, G, and H: Cedar Creek, Bullitt County, Kentucky

Unit 4 consists of 547 ac (221 ha) and includes eight subunits, all in Bullitt County, Kentucky. This proposed unit is located south of the Salt River and northeast of Cedar Grove and seems to represent the core of the remaining high-quality habitat for *L. exigua* var. *laciniata*. It includes eight element occurrences. In addition to being a stronghold for the species, these subunits are generally within close proximity (less than 0.5 miles (0.8 km)) to each other and represent the best opportunity for genetic exchange between occurrences.

Within Unit 4, *L. exigua* var. *laciniata* and its habitat may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 4A is 91 ac (37 ha) in size and is located south of Cedar Creek and west of Pine Creek Trail. This subunit is owned by The Nature Conservancy and encompasses most of the Pine Creek Barrens Preserve. This excellent-quality glade represents the only remaining “A” rank occurrence for *L. exigua* var. *laciniata*.

Subunit 4B is 69 ac (28 ha) in size and is located along an unnamed tributary to Cedar Creek, and south of KY 1442. This good-quality glade includes the Apple Valley Glade State Nature Preserve (SNP), owned by KSNPC (approximately 30 percent of subunit), as well as private land, including some under permanent conservation easement (approximately 41 percent of subunit) to protect *L. exigua* var. *laciniata*. Approximately 29 percent of this subunit is under private ownership without any protections for *L. exigua* var. *laciniata*.

Subunit 4C is 82 ac (33 ha) in size and located north of Cedar Creek and south of Apple Valley SNP. It is in private ownership. This subunit contains high-quality glades with a community of native plants present.

Subunit 4D is 46 ac (18 ha) in size and is located north of Cedar Creek and south of Victory Church. It is in private ownership. This site has been degraded and would benefit from improved management. Native plants associated with *L. exigua* var. *laciniata* occur within this subunit, but competition from lawn grasses, as well as forest encroachment due to fire suppression, impacts *L. exigua* var. *laciniata* and may decrease its ability to persist.

Subunit 4E is 102 ac (41 ha) in size and is located southeast of Subunit D and across Cedar Creek. It is in private ownership. It contains a large number of *L. exigua* var. *laciniata* (several thousand), but the habitat has been degraded by adjacent land use and would benefit from improved management. Competition from lawn grasses, as well as forest encroachment due to fire suppression, affects *L. exigua* var. *laciniata* and may decrease its ability to persist.

Subunit 4F is 120 ac (49 ha) in size and is south of the confluence of Cedar Creek and Greens Branch. It is in private ownership. This is a degraded glade that still contains native plants associated with *L. exigua* var. *laciniata*. The site is disturbed by existing and surrounding land uses as well as utility line maintenance, and ORV use, which may decrease the species' ability to persist.

Subunit 4G is 20 ac (8 ha) in size and is located along either side of KY 480 near White Run Road. It is in private ownership. This site contains a large number of plants; however, improved habitat conditions are needed for long-term viability of the *L. exigua* var. *laciniata* occurrence. Impacts to *L. exigua* var. *laciniata*, which may decrease its ability to persist at this site, include: incompatible agricultural or grazing practices, ORV riding, competition from lawn grasses, as well as forest encroachment due to fire suppression.

Subunit 4H is 16 ac (6 ha) in size and is located 0.95 miles southeast of the KY

480/KY 1604 intersection. It is in private ownership. Within this subunit, several patches of good habitat for *L. exigua* var. *laciniata* remain as well as a good diversity of native plant associates. However, competition from lawn grasses, as well as forest encroachment due to fire suppression, affects *L. exigua* var. *laciniata* and may decrease its ability to persist.

Unit 5, Subunits A and B: Cox Creek, Bullitt County, Kentucky

Unit 5 consists of 58 ac (23 ha) and includes two subunits, both in Bullitt County, Kentucky. It includes two element occurrences, representing the most easterly occurrences south of the Salt River. These subunits are important for maintaining the distribution and genetic diversity of the species.

Within proposed Unit 5, *L. exigua* var. *laciniata* and its habitat may require special management considerations or protection to address potential adverse effects associated with illegal waste dumps, development on private land, incompatible agricultural or grazing practices, ORV or horseback riding, competition from lawn grasses, and forest encroachment due to fire suppression.

Subunit 5A is 8 ac (3 ha) in size and is located east of Cox Creek and west of KY 1442. It is in private ownership. This site is threatened by ORV use and would benefit from improved management and habitat restoration.

Subunit 5B is 50 ac (20 ha) in size and is located west of Cox Creek near the Bullitt/Spencer County line. It is in private ownership. Incompatible agricultural practices and ORV use impacts *L. exigua* var. *laciniata* and may decrease its ability to persist. The native flora is mostly intact, and *L. exigua* var. *laciniata* would benefit from improved management and habitat restoration.

Unit 6: Rocky Run, Bullitt County, Kentucky

Unit 6 consists of 374 ac (151 ha) in Bullitt County, Kentucky. This critical habitat unit includes habitat that is under private ownership, including one 16-acre Registered Natural Area. It includes one element occurrence. This unit appears to represent the largest intact glade habitat remaining within the range of the species. Within proposed Unit 6, *L. exigua* var. *laciniata* and its habitat may require special management considerations or protection to address potential adverse effects associated with development on private land, incompatible agricultural or grazing practices, competition from lawn grasses, and forest encroachment due to fire suppression.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the

continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of “destruction or adverse modification” (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service*, 245 F.3d 434 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the United States Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal

action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

- (1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or
- (2) A biological opinion for Federal actions that may affect, or are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define “reasonable and prudent alternatives” (at 50 CFR 402.02) as alternative actions identified during consultation that:

- (1) Can be implemented in a manner consistent with the intended purpose of the action;
- (2) Can be implemented consistent with the scope of the Federal agency’s legal authority and jurisdiction;
- (3) Are economically and technologically feasible; and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the "Adverse Modification" Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may

destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for *Leavenworthia exigua* var. *laciniata*. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for *L. exigua* var. *laciniata*. These activities include, but are not limited to:

(1) Actions within or near critical habitat that would result in the loss of bare or open ground. Such activities could include, but are not limited to: development; road maintenance, widening or construction; and utility line construction or maintenance. These activities could eliminate or reduce the habitat necessary for growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

(2) Actions within or near critical habitat that would modify the hydrologic regime that allows for the shallow soils to be very wet in late winter to early spring and dry quickly. Such activities could include, but are not limited to: development; road maintenance, widening, or construction; and utility line construction or

maintenance. These activities could alter habitat conditions to the point of eliminating the site conditions required for growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

(3) Actions within or near critical habitat that would remove or alter vegetation and allow erosion, sedimentation, shading or the introduction or expansion of invasive species. Such activities could include, but are not limited to: land clearing; silviculture; fertilizer, herbicide, or insecticide applications; development; road maintenance, widening, or construction; and utility line construction or maintenance. These activities could alter habitat conditions to the point of eliminating the site conditions required for growth, reproduction, and/or expansion of *L. exigua* var. *laciniata*.

Exemptions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resources management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- (1) An assessment of the ecological needs on the installation, including the need

to provide for the conservation of listed species;

(2) A statement of goals and priorities;

(3) A detailed description of management actions to be implemented to provide for these ecological needs; and

(4) A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: “The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.”

There are no Department of Defense lands with a completed INRMP within the proposed critical habitat designation.

Exclusions

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we may exclude an area from designated critical habitat based on economic impacts, impacts on national security, or any other relevant impacts. In considering whether to exclude a particular area from the designation, we identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and evaluate whether the benefits of exclusion outweigh the benefits of inclusion. If the analysis indicates that the benefits of exclusion outweigh the benefits of inclusion, the Secretary may exercise his discretion to exclude the area only if such exclusion would not result in the extinction of the species.

Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we are preparing an analysis of the economic impacts of the proposed critical habitat designation and related factors.

We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.regulations.gov>, or by contacting the Kentucky Ecological Services Field Office directly (see **FOR FURTHER INFORMATION CONTACT** section). During the development of a final designation, we will consider economic impacts, public comments, and other new information, and areas may be excluded from the final critical habitat designation under section 4(b)(2) of the Act and our implementing regulations at 50 CFR 424.19.

National Security Impacts

Under section 4(b)(2) of the Act, we consider whether there are lands owned or managed by the Department of Defense where a national security impact might exist. In preparing this proposal, we have determined that no lands within the proposed

designation of critical habitat for *L. exigua* var. *laciniata* are owned or managed by the Department of Defense, and, therefore, we anticipate no impact on national security. Consequently, the Secretary does not propose to exercise his discretion to exclude any areas from the final designation based on impacts on national security.

Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that there are currently no HCPs or other management plans for *L. exigua* var. *laciniata*, and the proposed designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this proposed critical habitat designation. Accordingly, the Secretary does not propose to exercise his discretion to exclude any areas from the final designation based on other relevant impacts.

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information received during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Public Hearings

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. Requests must be received within 45 days after the date of publication of this proposed rule in the **Federal Register**. Such requests must be sent to the address shown in the **ADDRESSES** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the hearing.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C.

801 *et seq.*), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

According to the Small Business Administration, small entities include small organizations such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include such businesses as manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and forestry and logging operations with fewer than 500 employees and annual business less than \$7 million. To determine whether small entities may be affected, we will consider the types of activities that might trigger regulatory impacts under this designation as well as types of project modifications that may result. In general, the term “significant economic impact” is meant to apply to a typical small

business firm's business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

Under the RFA, as amended, and following recent court decisions, Federal agencies are required only to evaluate the potential incremental impacts of rulemaking on those entities directly regulated by the rulemaking itself, and not the potential impacts to indirectly affected entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried out by the Agency is not likely to adversely modify critical habitat. Therefore, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Under these circumstances, it is our position that only Federal action agencies will be directly regulated by this designation. Therefore, because Federal agencies are not small entities, the Service may certify that the proposed critical habitat rule will not have a significant economic impact on a substantial number of small entities.

We acknowledge, however, that in some cases, third-party proponents of the action subject to permitting or funding may participate in a section 7 consultation, and thus may be indirectly affected. We believe it is good policy to assess these impacts if we have sufficient data before us to complete the necessary analysis, whether or not this analysis is strictly required by the RFA. While this regulation does not directly regulate these entities, in our draft economic analysis we will conduct a brief evaluation of the potential number of third parties participating in consultations on an annual basis in order to ensure a more complete examination of the incremental effects of this proposed rule in the context of the RFA.

In conclusion, we believe that, based on our interpretation of directly regulated entities under the RFA and relevant case law, this designation of critical habitat will directly regulate only Federal agencies, which are not by definition small business entities. Therefore, we certify that, if promulgated, this designation of critical habitat would not have a significant economic impact on a substantial number of small business entities. Therefore, an initial regulatory flexibility analysis is not required. However, though not necessarily required by the RFA, in our draft economic analysis for this proposal we will consider and evaluate the potential effects to third parties that may be involved with consultations with Federal action agencies related to this action.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect the designation of this proposed critical habitat to significantly affect energy supplies, distribution, or use because these areas are not presently used for energy production, and we are not aware of any future plans in this regard. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both “Federal intergovernmental mandates” and “Federal private sector mandates.” These terms are defined in 2 U.S.C. 658(5)–(7). “Federal intergovernmental mandate” includes a regulation that “would impose an enforceable duty upon State, local, or tribal governments” with two exceptions. It excludes “a condition of Federal assistance.” It also excludes “a duty arising from participation in a voluntary Federal program,” unless

the regulation “relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,” if the provision would “increase the stringency of conditions of assistance” or “place caps upon, or otherwise decrease, the Federal Government’s responsibility to provide funding,” and the State, local, or tribal governments “lack authority” to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. “Federal private sector mandate” includes a regulation that “would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.”

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary

Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because the designation of critical habitat imposes no obligations on State or local governments. Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment if appropriate.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for *L. exigua* var. *laciniata* in a takings implications assessment. Critical habitat designation does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. The takings implications assessment concludes that this designation of critical habitat for *L. exigua* var. *laciniata* does not pose significant takings implications for lands within or affected by the designation.

Federalism—Executive Order 13132

In accordance with Executive Order 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Kentucky. The designation of critical habitat in areas currently occupied by the *L. exigua* var. *laciniata* may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the physical or biological features essential to the conservation of the species are more clearly defined, and the elements of the features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the

legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the elements of physical or biological features essential to the conservation of *L. exigua* var. *laciniata* within the designated areas to assist the public in understanding the habitat needs of the species.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations with Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands that were occupied by *L. exigua* var. *laciniata* at the time of listing that

contain the features essential for conservation of the species, and no tribal lands unoccupied by *L. exigua* var. *laciniata* that are essential for the conservation of the species. Therefore, we are not proposing to designate critical habitat for *L. exigua* var. *laciniata* on tribal lands.

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

References Cited

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Kentucky Ecological Services Field Office. (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this package are the staff members of the Kentucky Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245; unless otherwise noted.

2. In § 17.96, amend paragraph (a) by adding an entry for “*Leavenworthia exigua* var. *lacinata* (Kentucky glade cress),” in alphabetical order under Family Brassicaceae to read as follows:

§ 17.96 Critical habitat—plants.

(a) *Flowering plants.*

* * * * *

Family Brassicaceae: *Leavenworthia exigua* var. *lacinata* (Kentucky glade cress)

(1) Critical habitat units are depicted for Bullitt and Jefferson Counties, Kentucky, on the maps below.

(2) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of *L. exigua* var. *laciniata* consist of these components:

(i) Cedar glades and gladelike areas within the range of *L. exigua* var. *laciniata* that include:

(A) Areas of rock outcrop, gravel, flagstone of Silurian dolomite or dolomitic limestone, and/or shallow (1–5 cm), calcareous soils;

(B) Intact cyclic hydrologic regime involving saturation and/or inundation of the area in winter and early spring, then drying quickly in the summer;

(C) Full or nearly full sunlight; and

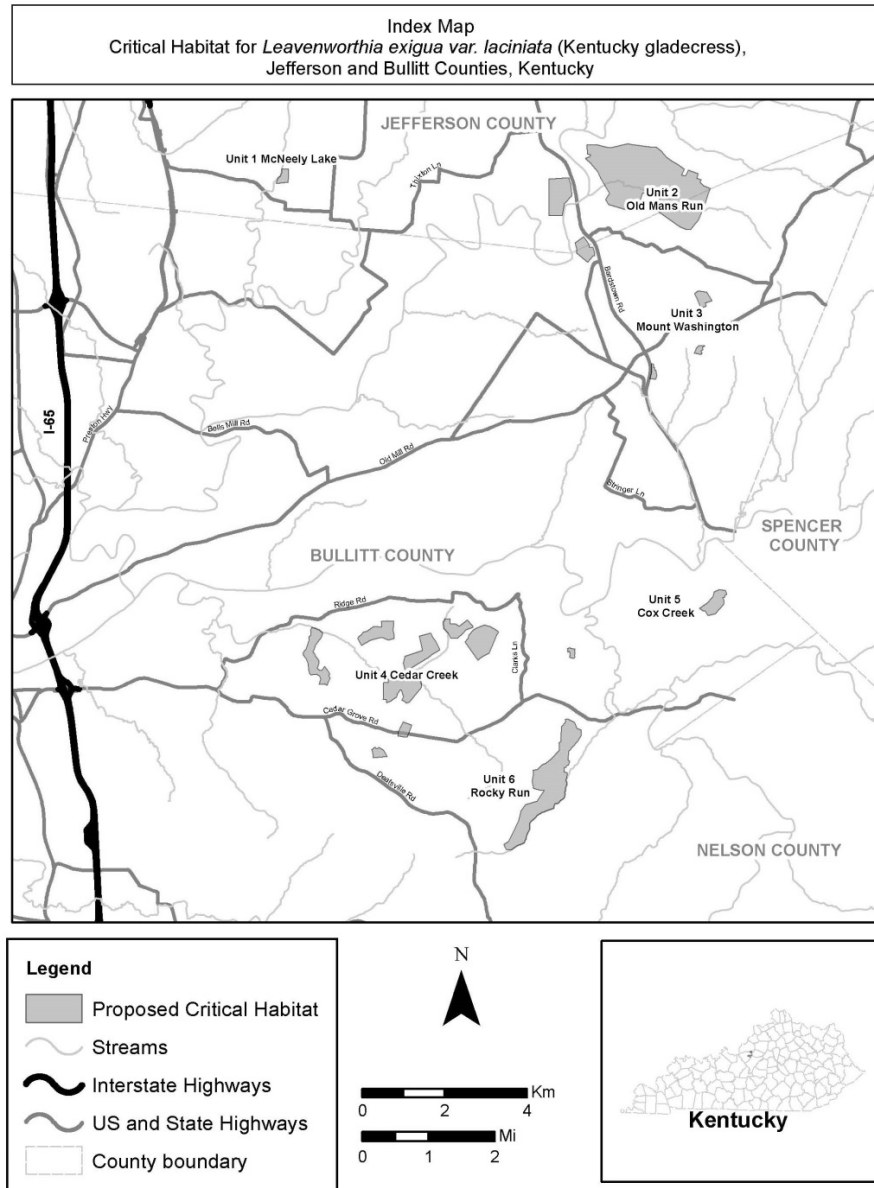
(D) An undisturbed seed bank.

(ii) Vegetated land around glades and gladelike areas that extends up and down slope and ends at natural (e.g., stream, topographic contours) or manmade breaks (e.g., roads).

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) Critical habitat map units. Data layers defining map units were created using a base of aerial photographs (USDA National Agricultural Imagery Program; NAIP 2010), and USA Topo Maps (National Geographic Society 2011). Critical habitat units were then mapped using Universal Transverse Mercator (UTM) Zone 16 North American Datum (NAD) 1983 coordinates.

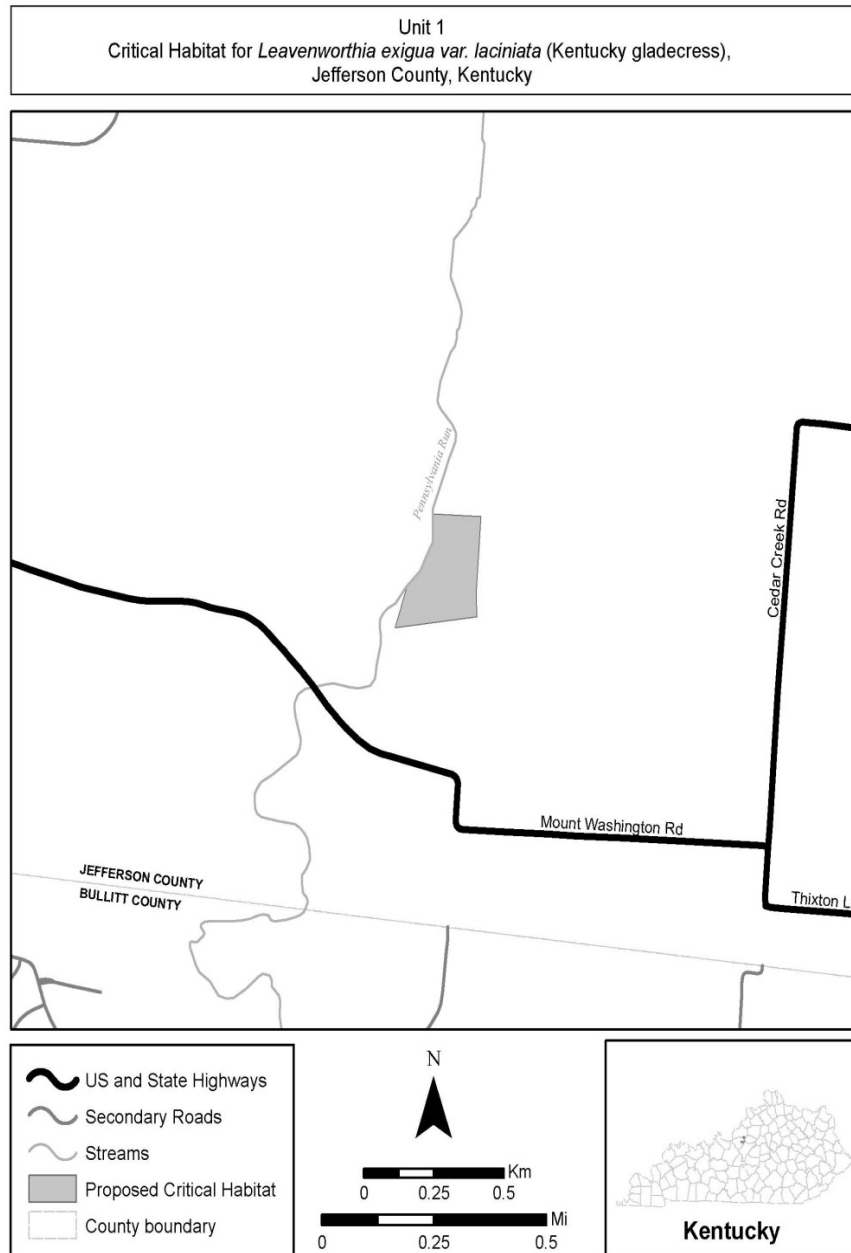
(5) Note: Index map follows:



(6) Unit 1, McNeely Lake: Critical habitat for *L. exigua* var. *laciniata*, Jefferson County, Kentucky.

(i) Unit 1 includes 18 ac (7 ha).

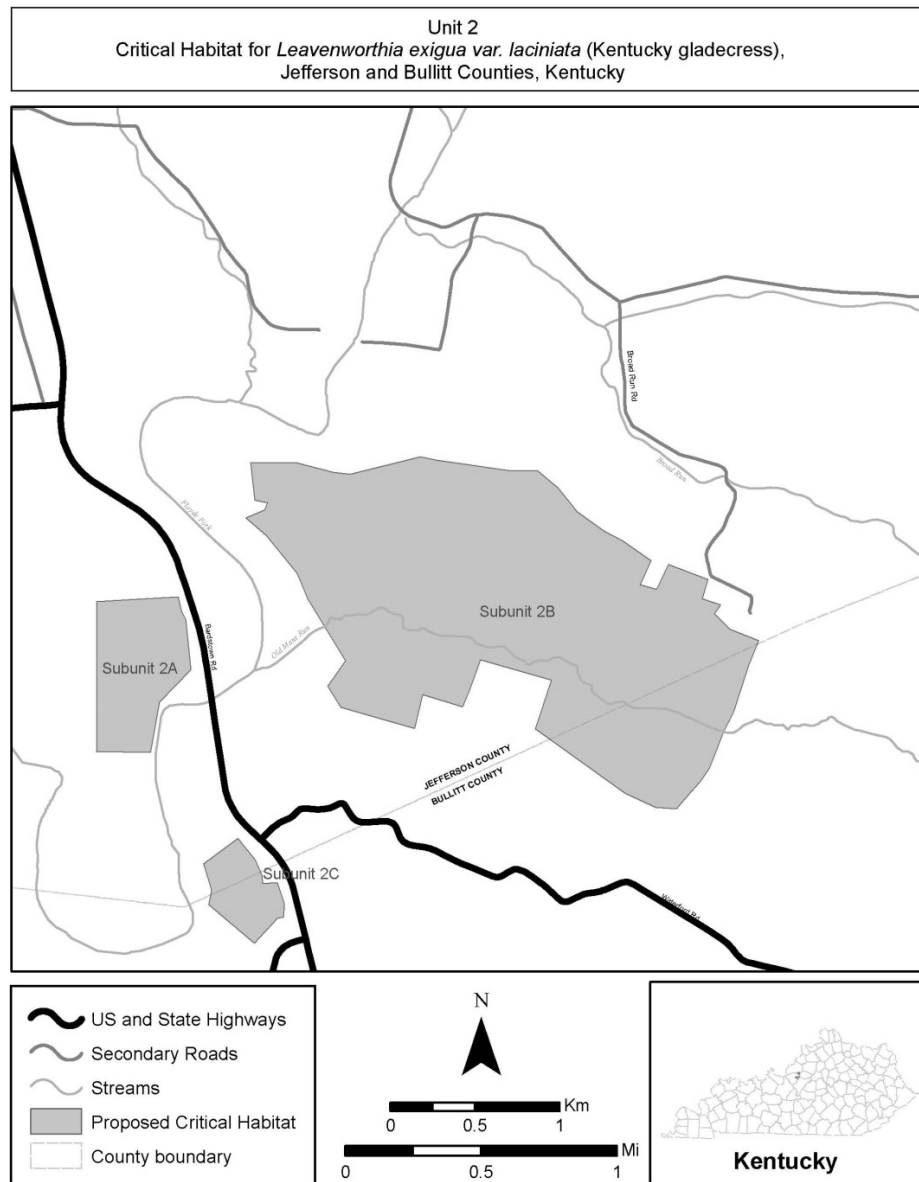
(ii) Note: A map of Unit 1 follows:



(7) Unit 2, Old Mans Run: Critical habitat for *L. exigua* var. *laciniata*, Jefferson County, Kentucky.

(i) Unit 2 includes 1,014 ac (410 ha): Subunit A includes 102 acres (41 ha); Subunit B includes 870 acres (352 ha); Subunit C includes 42 ac (17 ha).

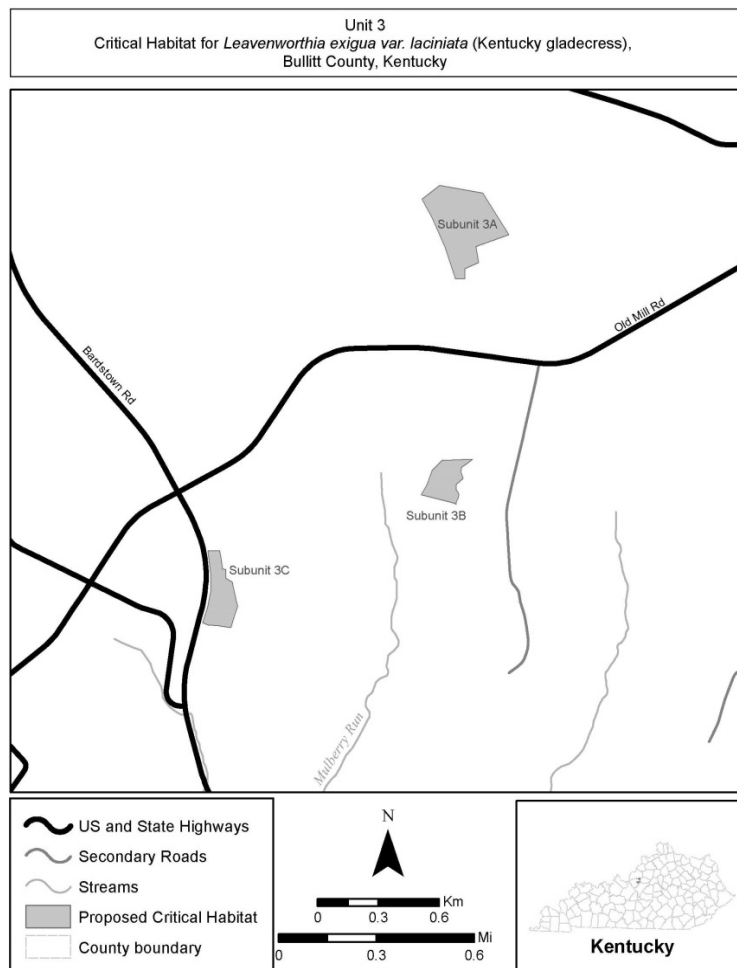
(ii) Note: A map of Unit 2 follows:



(8) Unit 3: Mount Washington: Critical habitat for *L. exigua* var. *laciniata*, Bullitt County, Kentucky.

(i) Unit 3 contains 130 ac (53 ha): Subunit A contains 25 ac (10 ha); Subunit B contains 7 ac (3 ha); Subunit C contains 10 ac (4 ha);.

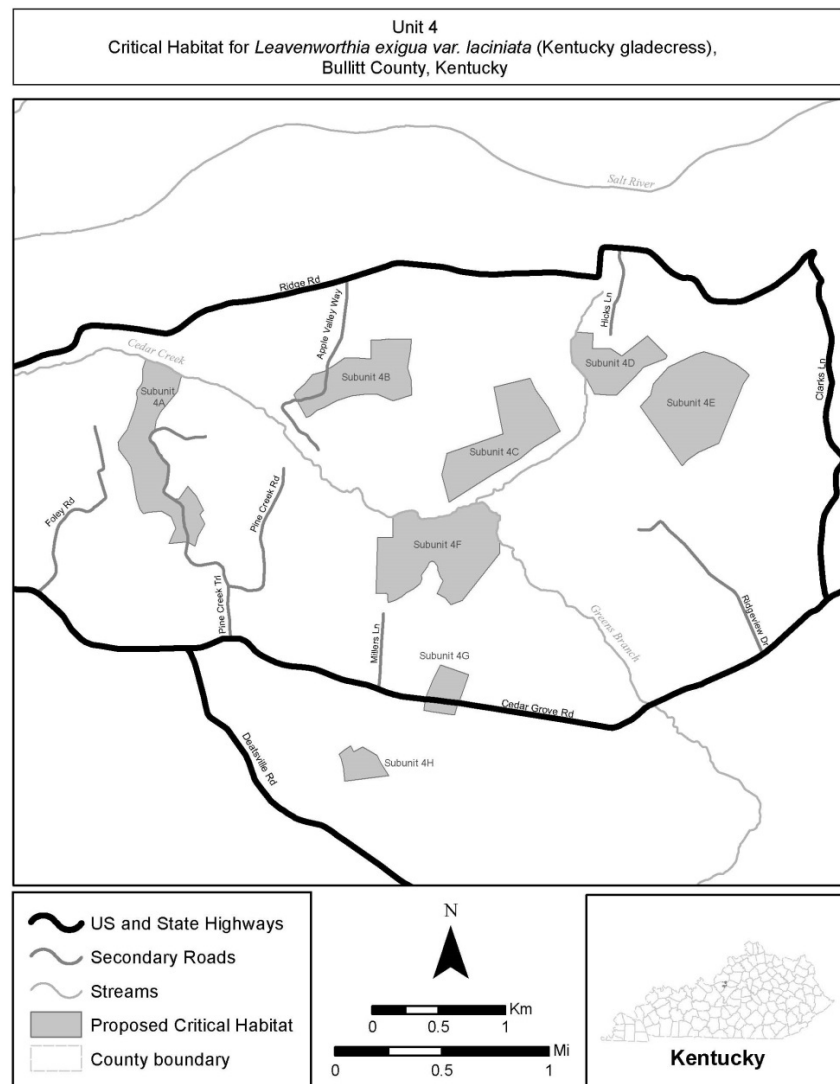
(ii) Note: A map of Unit 3 follows:



(9) Unit 4 Cedar Creek: Critical habitat for *L. exigua* var. *laciniata*, Bullitt County, Kentucky.

(i) Unit 4 contains 546 ac (221 ha): Subunit A contains 91 ac (37 ha); Subunit B contains 69 ac (28 ha); Subunit C contains 83 ac (33 ha); Subunit D contains 46 ac (18 ha); Subunit E contains 102 ac (41 ha); Subunit F contains 120 ac (49 ha); Subunit G contains 20 ac (8 ha); Subunit H contains 16 ac (6 ha).

(ii) Note: A map of Unit 4



follows:

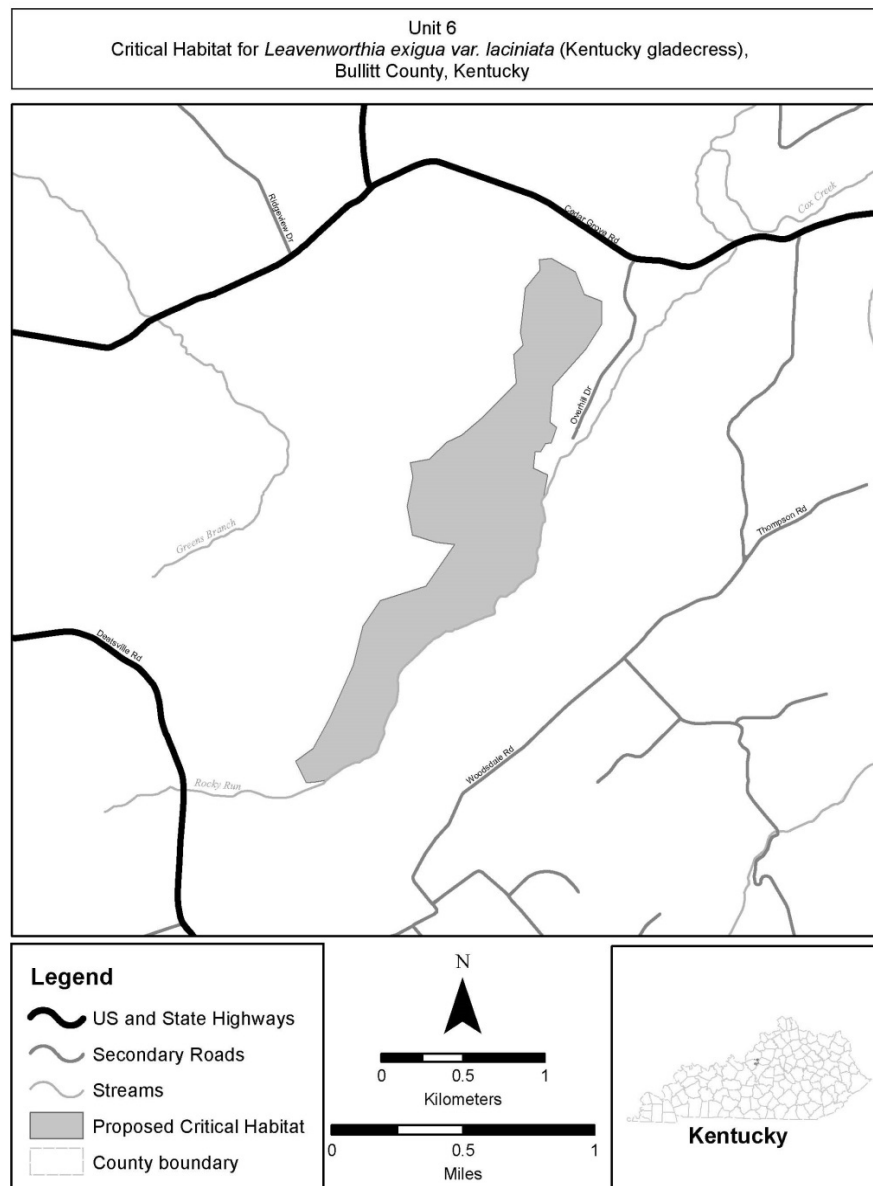
(ii) Note: A map of Unit 5 follows:



(11) Unit 6, Rocky Run: Critical Habitat for *L. exigua* var. *laciniata*, Bullitt County, Kentucky.

(i) Unit 6 contains 374 ac (151 ha).

(ii) Note: A map of Unit 6 follows:



Dated: May 14, 2013

Rachel Jacobson

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks

Billing Code 4310-55-P

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